

ARL Promotes Competition through SPARC: The Scholarly Publishing & Academic Resources Coalition

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[Japanese Translation](#) - note: This link is to a Japanese language page and will require a Japanese font set to display properly. Please contact the translator of this page, [Soichi Tokizane](#) for further information.

The system of scholarly publishing is a complex process that is centered on the intellectual property of the faculty author. Until recently, it was routine for faculty in the process of publishing to transfer the copyright of this property to a publisher. The intellectual property and the attendant rights form the economic basis of a publisher's investment. For many generations, this system, dominated primarily by scholarly societies and university presses, appeared to serve authors, publishers, and the education and research community well. During the 1960s, however, these traditional outlets could not expand fast enough to provide the increased capacity for publishing generated by a system of higher education that was rapidly expanding. Commercial publishers stepped in to fill the need. Some of these publishers discovered that journal publishing, especially in science, technology, and medicine, could be very lucrative. A few have exploited the market and are doing everything they can to ensure future profits through aggressive pricing strategies, publisher consolidation, and influencing legislation to ensure greater intellectual property protection.

One key strategy in counteracting these trends toward higher prices is to provide additional prestigious and cost-based outlets for the best faculty work. To this end, ARL recently approved the development of a project called [SPARC](#)—Scholarly Publishing & Academic Resources Coalition—a project that seeks to encourage the development of competition in the scholarly publishing marketplace.

SPARC is conceived as a partnership project of ARL and other educational and research organizations. Its mission is to be a catalyst:

- To create a more competitive marketplace for research information by providing opportunities for new publishing ventures, endorsing new publications and information products, and recruiting authors, editors, and advisory board members.
- To promote academic values of access to information for research and teaching, the continuation of fair use and other library and educational uses in an electronic information environment, and the ethical use of scholarly information.
- To encourage innovative uses of technology to improve scholarly communication by collaborating in the design and testing of new products; advancing new publishing models as appropriate applications of electronic networks, such as Internet2; and developing systems and standards for the archiving and management of research

findings.

Marketplace Trends

Most faculty and librarians are now very familiar with the annual cycle of serials cancellations in academic and research libraries. What has also become clear is that the cancellation projects are not one-time adjustments to local circumstances, but manifestations of a marketplace that is pricing some resources beyond the reach of the educational community. Over the past decade, ARL statistics show that research library expenditures for serials have increased almost 10% a year and that the unit cost of a serial title has increased by 147%. Since 1986, while ARL libraries have canceled hundreds of thousands of dollars worth of journals, they have spent 124% more on serials to purchase 7% fewer titles. During the same period, expenditures on monographs have increased 29% and ARL libraries have purchased 21% fewer titles.

While some price increases can be justified by the increase in numbers of pages and articles included within a volume to accommodate the increased output of faculty, there is evidence to suggest that some commercial publishers charge prices that significantly exceed the costs of production. In 1989, Economic Consulting Services, Inc. (ECS) concluded an analysis for ARL of the trends in average subscription prices and publication costs over time. The analysis focused on over 100 titles published by four major publishers in the U.S. and Europe. The result of the ECS report found that from 1973-1987, publisher profits increased between 40% and 137%. The results also indicate that the cost increases faced by these publishers did not fully justify the price increases paid by research libraries.

One of the most profitable scholarly publishers is Reed Elsevier, one of the world's largest publishing and information companies, located in the United Kingdom. Its 1996 Combined Profit and Loss Statement (which is included on its website [no longer available: 7/13/2001]) reports a gross profit of £2,082 million (about \$3.5 billion) on sales of almost £3,400 million (\$5.7 billion). The net operating expenses are £1,248 million (or \$2.1 billion). This appears to be a fairly substantial margin (£834 million or \$1.4 billion). After taxes, £604 million (or approximately \$1 billion) is left to pay out dividends to shareholders (£348 million) and to transfer funds to reserve (£256 million). The statement at the bottom of the report notes: "The historical cost profits and losses are not materially different from the results disclosed above."

Elsevier Science, an international publisher of scientific information headquartered in the Netherlands, is one of the several publishing companies owned by Reed Elsevier. Preliminary analysis of figures recently gathered by ARL shows that, on average, an ARL library spends almost \$628,000 dollars a year with Elsevier Science to obtain 378 titles. That is 3.5% of the serials titles subscribed to by a library but almost 21% of the annual serials expenditures. Extrapolating from these averages, the 121 ARL libraries spend over \$75 million a year on Elsevier Science titles. This is a significant portion of U.S. and Canadian research library materials budgets going to one company.

To illustrate, Elsevier Science publishes some of the most expensive serials subscribed to by research libraries. The accompanying [table](#) provides a sample of these journal titles and the

increases in their subscription prices between 1995 and 1998. The increases range from a total of 43.5% to 65.8%.

Maximizing the Market Through Consolidation

There is also anecdotal evidence that another trend in the publishing industry may be affecting the price of library materials: the consolidation of publishers of core products. Reed and Elsevier merged in 1993 and have since pursued an aggressive corporate strategy of acquisitions and mergers. Reed Elsevier now owns publishing companies throughout Europe and North America, including Bowker/Saur, Butterworth's, Shepard's, Lexis-Nexis, and the Congressional Information Service, to name a few. Its corporate global strategy, as stated on its website, is to concentrate on "must have" information and to continue development through "organic growth and acquisition." This includes not only buying other companies, but also buying or contracting to publish society and association journals.

In October 1997, Reed Elsevier announced a plan to merge with Wolters Kluwer, which itself owns Lippincott/Raven and a number of other European companies. A new company, Elsevier Wolters Kluwer, would, according to *The New York Times* (29 December, 1997), "create the world's largest publisher of professional and trade journals, with estimated combined 1997 revenues of \$8 billion...." Regulatory agencies in both Europe and the United States are concerned about and are investigating this proposed merger. But that has not stopped additional acquisitions. In December 1997, Elsevier Science released a statement that it was in negotiation with the Beilstein Institute, a non-profit German organization, to obtain an exclusive commercial license to the *Beilstein Database and Handbook*, the standard reference work for organic chemistry. In late January 1998, Engineering Information, Inc. notified its customers that it was selling virtually all of its assets, including its name, to the newly created Elsevier Engineering Information, Inc., a wholly-owned subsidiary of Elsevier Science.

Publisher consolidation is also underway in the fields of law and business, where the Thomson Corporation of Canada has moved aggressively to acquire other publishers. Thomson owns the Institute for Scientific Information, Gale Research, West, and Warren Gorham Lamont. When Thomson purchased West Publishing in 1996, it was required by regulatory agencies to sell off a number of its law journals. These titles were purchased by Lexis-Nexis, owned by Reed Elsevier. In another switch among the giants, Thomson announced in December that it had agreed to sell its Thomson Science subsidiary to Wolters Kluwer. (Data from the Thomson website shows that the specialized information/publishing companies within Thomson made \$747 million, or 19% operating profit, before amortization in 1996; see [no longer available: 7/13/2001].)

As might be anticipated with the recent takeover of Lexis-Nexis by Reed Elsevier, pricing and access options are changing. As of September, one ARL member library estimated that it would have to pay 3.5 times the current cost for the new Lexis-Nexis educational service, which includes less access than its previous subscription. The library would now pay a total of \$87,000 a year versus the current price of \$25,200. An example of the impact on the pricing of an individual title taken over by Elsevier in 1997 is the subscription price for the *Journal of Supercritical Fluids*. The journal was published by Polymer Research Associates and cost \$275

for a yearly subscription. A subscription for 1998 costs \$657.

Faced with rising prices that show no sign of moderating, libraries have undertaken a number of strategies to try to manage their budgets and increase their buying power. These include journal cancellations, with reliance on document delivery and cooperative collection development for low use materials, and consortial licensing of electronic resources. These generally local strategies, however, have had limited effectiveness in moderating prices and have had no impact on the growing concentration of the publishing industry. Cancellations only result in increased prices for the rest of the subscribing community, exacerbating the already high prices.

Expanding Product Control Through Legislation

But higher prices are not the only concern arising from the increased concentration of publishing in the hands of a few large commercial companies. There is also the issue of how much exclusive control the copyright holder may assert over access to and use of copyrighted information. The last year has seen accelerated effort on the part of many stakeholders in the scholarly communication process, including libraries, to ensure continuation of balanced copyright law in a digital and networked environment. However, the same commercial publishers that have successfully pursued a profit-maximization strategy in the print environment are aggressively advocating legislation that would strengthen the copyright owner's monopoly and control over intellectual property. Some of the legislative proposals being promoted would transform current copyright law into a dramatically more restrictive instrument, narrowing or eliminating fair use and other provisions that provide for educational use of copyrighted materials.

As an example, access to information for research and education could be significantly restricted under H.R. 2652, The Collections of Information Antipiracy Act, a bill introduced into the U.S. House of Representatives in October 1997. Reed Elsevier and Thomson are major proponents of the bill, which would amend the Copyright Act to "protect databases from misappropriation." While it is not unreasonable for publishers to want to protect their products, there is no convincing evidence, especially in light of the publishers' profitable track records, that data is being "misappropriated" on a scale that justifies this legislative action. The legislation as written is extremely broad, covering everything from facts to journal articles, and the exemptions for educational, scientific, or research uses are too narrow to be useful. C. Judson King, Provost and Senior Vice President of Academic Affairs, University of California system, believes that "H.R. 2652 would impede the free exchange of information and ideas that is the engine of the academic enterprise, thereby slowing the dissemination and creation of new knowledge" (letter to The Honorable Howard Berman, 29 October, 1997). Not only are Reed Elsevier and Thomson intent on maximizing their profits through pricing and consolidation, they are actively pursuing legislative agendas to ensure long-term protection of their revenue streams, but at the expense of education and the public good.

The conditions of the scientific and scholarly publishing marketplace make it impossible for higher education to sustain library budgets on a scale sufficient to keep up with increasing prices and the level of output. At the same time, access to and use of digital information

resources could be restricted by legislative attempts to expand the copyright holders' control over access to intellectual property. The need for alternative publishing outlets – “new entrants,” “greater competition,” and “alternative models” – particularly in the serials marketplace, has become increasingly obvious and increasingly urgent.

Why SPARC and Why Now?

Increased competition was identified as a key strategy for addressing rising prices for serials ten years ago, but change has been slow in coming. A number of critical factors, however, have now converged to make the transformation of the scholarly communication system possible:

- Alternative models of scholarly communication are now economically and technologically feasible. The rise of the Internet and World Wide Web have made it possible for anyone to publish.
- Capable partners are ready to join with research institutions to create new publishing alternatives.
- Libraries and universities are prepared to redirect budget resources to support new forms of scholarly publishing. This was confirmed at a recent meeting of academic administrators who indicated their willingness to devote resources to address the problems in scholarly communication. Academic administrators have come to realize that the strategies that libraries can pursue on their own cannot adequately address the fundamental problems in the current system of scholarly communication. Collective effort by the community is required.
- Faculty and academic administrators will support initiatives that offer realistic alternatives for disseminating research findings and scholarship.

On June 30, 1997, representatives from 45 ARL institutions met to discuss a proposal to create an electronic publishing fund and to seek publishing partners interested in entering the serials market in areas in which prices are highest and there is the greatest need for alternative models of research communication. The meeting resulted in the formation of a small working group of library directors who volunteered to work with ARL staff in developing an action plan.

The Working Group identified potential partners – organizations that may be interested in forming partnership relationships with libraries and educational institutions. These include:

- Professional societies and university presses interested in launching new publishing initiatives.
- Start-up electronic publishers that have already created publications in subject fields dominated by commercial publishers.
- For-profit enterprises that offer new strategies for controlling costs and improving access

to research information.

- “Visionary” enterprises, including both discipline and institution-based server models, seeking to create entirely new economic models for scholarly communication.

The partnerships forged by SPARC will depend on the readiness of potential partners to achieve the goals of the coalition in terms of content and infrastructure. In addition, potential partners will be evaluated on whether: they share the values of the scholarly and academic community, they have credibility in the scholarly marketplace, their leadership is committed to the goals of SPARC, they have publishing experience, and they are willing to commit resources.

The key criterion that is critical to the success of these partnerships is shared values. The values proposed for SPARC partners include support for:

- Fostering a competitive market for scholarly publishing by encouraging new participants in the publishing field that are committed to principles of cost-based pricing.
- Implementing policies for intellectual property management emphasizing broad and easy distribution and reuse of material and the ethical use of scholarly resources.
- Encouraging innovative applications of available information technology to enrich and expand research and scholarship and the available means for distribution.
- Assuring that new channels of scholarly communication sustain quality requirements and contribute to promotion and tenure processes.
- Enabling the permanent archiving of research publications and scholarly communication, including those published in digital formats.

Last October, the ARL Board gave the go-ahead to the Office of Scholarly Communication to develop a plan to make the SPARC concept a reality. An ad hoc Working Group guiding the next phase of SPARC’s development will propose a membership strategy that invites the participation of other library, educational, and research organizations in SPARC. The Working Group is also charged with the responsibility to develop a business plan and action agenda to support at least five alternative publishing ventures by the end of 1998. The first major action of the Working Group this year was to invite ARL libraries to become Founding Members of SPARC. At press time, almost 50 ARL libraries had responded. Next on the Working Group’s agenda will be hiring a SPARC project manager.

ARL recognizes that SPARC is only one of a number of strategies that must be undertaken simultaneously to ensure long-term access to scholarly research. Other strategies include working aggressively in the legislative arena to ensure fair use and other educational and library uses of copyrighted works in the digital environment; investigating options for faculty and the university to retain and better manage intellectual property rights; and the decoupling of the academic credentialing process from formal publication. None of these strategies will

work without the support and involvement of faculty, academic administrators, and the research and scholarly community. With these constituencies, ARL will pursue SPARC as one effort to build the partnerships necessary to create a future for scholarly communication that is robust, innovative, and affordable.

Thanks to Carson Holloway for gathering information on corporate ownership included in this article. More information about SPARC can be found at <http://www.arl.org/sparc/>.

SAMPLES OF SUBSCRIPTION PRICE INCREASES

	1995	1996	Change	1997	Change	1998	Change	Change 95 to 98
Brain Research	\$10,181	\$12,234	20.2%	\$14,919	21.9%	\$15,428	3.4%	51.5%
Biochim. Biophys. Acta	\$7,555	\$8,837	17.0%	\$10,528	19.1%	\$10,839	3.0%	43.5%
Chem. Phys. Letters	\$5,279	\$6,569	24.4%	\$7,818	19.0%	\$8,060	3.1%	52.7%
Eur. Jnl. of Pharmacology	\$4,576	\$5,680	24.1%	\$6,431	13.2%	\$6,702	4.2%	46.5%
Gene	\$3,924	\$5,069	29.2%	\$6,144	21.2%	\$6,433	4.7%	63.9%
Inorganica Chim. Acta	\$3,611	\$4,476	24.0%	\$5,283	18.0%	\$5,540	4.9%	53.4%
Intl. Jnl. of Pharmaceutics	\$3,006	\$3,915	30.2%	\$4,691	19.8%	\$4,983	6.2%	65.8%
Neuroscience	\$3,487	\$4,001	14.7%	\$4,543	13.5%	\$5,073	11.7%	45.5%
Theoretical Computer Science	\$2,774	\$3,425	23.5%	\$3,835	12.0%	\$4,059	5.8%	46.3%
Jrnl. of Exp. Marine Bio. & Eco.	\$1,947	\$2,445	25.6%	\$2,811	15.0%	\$2,931	4.3%	50.5%
Solid State Communications	\$1,945	\$2,327	19.6%	\$2,602	11.8%	\$2,871	10.3%	47.6%

Note: The actual subscription price paid by an individual library may vary. The prices above for 1995-1997 reflect actual experience in two ARL member libraries; 1998 prices are taken from the Elsevier Science website.

[Table of Contents for Issue 196](#) | [SPARC](#) | [Other Scholarly Communication Articles](#) | [Other Current Issues Articles](#)



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